



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/648,006	08/03/1998	Daniel A. Nepela	A26996D2	7041
7590		02/10/2004	EXAMINER	
Nathan N Kallman		EASTHOM, KARL D		
20900 Sarahills Drive		ART UNIT		
Saratoga, CA 95070		PAPER NUMBER		
		2832		
DATE MAILED: 02/10/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/648,006	NEPELA, DANIEL A.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Karl D Easthom	2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 7,10,12,14,15,20,24,38,39,47,48,50,56,66,79 and 82 is/are pending in the application.
- 4a) Of the above claim(s) 12,20,24,38,39,47,48,50,56,66,79 and 82 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7,10, 14, & 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 2832

1. Applicant's election with traverse of claims 7, 10, and 14-15 repeated in is acknowledged.

The traversal is on the ground(s) that the inventions are linked, and some of the claims are obvious variants over one another. This is not found persuasive for reasons noted below. The requirement is still deemed proper and is therefore made FINAL.

2. The terminal disclaimer filed on 11/24/03 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of 5,793,279 has been reviewed and is accepted. The terminal disclaimer has been recorded.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 14-15 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claimed invention lacks written description for FeCr, FeCrV and FeAl to be FCC crystals as required in claim 7. Those are BCC systems as applicant's Table II discloses.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 7 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Iwasaki et al. The claimed invention is disclosed at Example 28 for example, where a first and second

Art Unit: 2832

ferromagnetic layer with FCC first and third materials of CoFe with layer second layer Cu, which has an FCC structure (according to applicant's Appendix A) where the absolute value of electronegative is minimized with respect to another layer such as Ag or Co. That is, a higher absolute value of difference in electronegativity would occur for one of those since they are on either side of the scale in electronegativity with respect to Cu, and only three cases exist for the electronegativity of CoFe: electronegativity 0 (possible CoFe) Ag (possible CoFe) Cu (possible CoFe) Co (possible CoFe) electronegativity high. In any case, the difference between the possible CoFe electronegativity and that for Cu, since it lays between Ag and Co in electronegativity, is less than that for one of either Ag or Co, so that the difference involving Cu is minimized with respect to using one of them. The method does not require one to minimize based upon the electronegativity difference, only to select FCC layers, and that the layers have a minimized relationship, after the selection, regardless of the basis used for selection. For claim 10, Cu Pd is disclosed at col. 3, lines 35-55.

7. Applicant's arguments filed 11/24/03 have been considered but are not persuasive. As to the restriction requirement, Applicant did not originally must submit that any claims he wishes to have examined are obvious variants over the claims that read on the species that the Applicant elected originally, as clearly indicated in the original restriction requirement.

Submitting that claims 12, 20, 24, 38, 39, 47, 56, and 98 are obvious variants over another is not sufficient. With respect to the double patenting argument, same is mooted by the Terminal Disclaimer which is proper. As to the query as to the 112 rejection, claims 14-15 require an FCC system since they depend from claim 7. As to the argument that applicant has different problems he addresses in his application, this is not germane to what is claimed. There is no


Art Unit: 2832

argument about what applicant claims, and what Iwasaki lacks. The statement that “[i]n the present application, specific materials are designated and claimed to achieve an electronegativity in order to maximize signal ...” is taken to mean a description of materials in the application, not what is claimed. Even claiming known or unknown properties of known materials does not create a patentable distinction, where the method does not include choosing the materials based upon electronegativity.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl Easthom whose telephone number is (703)308-3306. The examiner can normally be reached on M-Th. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad, can be reached on (703)308-7619. The fax phone number for the organization where this application or proceeding is assigned is (703)308-7722. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

  
**KARL D. EASTHOM**  
**PRIMARY EXAMINER**